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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/630,033 | 07/30/2003 | John Alex Leonard | EPE 2 0012-2 | 7769 |

27885 7590 01/30/2006

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EXAMINER

MENON, KRISHNAN S

ART UNIT PAPER NUMBER

1723

DATE MAILED: 01/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/630,033

Applicant(s)

LEONARD ET AL.

Examiner

Krishnan S. Menon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 16-25 are pending after the amendment of 12/21/05

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 16, 18-20 and 22-25 are rejected under 35 U.S.C. 102(b) as being anticipated by, or in the alternate, under 35 USC 103(a) as obvious over Place et al (US 3,554,905).

Claim 16: claim language 'where desired' and 'where required' are considered to represent optional features, and therefore, do not further limit the claims.

Claim limitations recited a "suitable means of (controlled flow, supplying agitation, heating or cooling, controlling pressure, removing measured volume, etc.)" represent means-plus-function language, and therefore, invoke 35 USC 112, 6th paragraph. An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof. Since the specification does not provide any specific structure or description for these means-plus-function language, they are given the broadest reasonable interpretation. See

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Kemco Sales, Inc. v. Control Papers Company, Inc., 208 F.3d 1352, 54 USPQ2d 1308 (Fed. Cir. 2000), and MPEP 2181.

Place teaches a device for producing iodine solution comprising an iodine vapor permeable membrane (see “semipermeable membrane” in column 2) in the form of a pouch, iodine source in the pouch (column 2 lines 14-16), an iodine receiving medium (water), a vessel (column operation or body of water: column 3 lines 10-14), means for applying agitation (effective agitation or flow), and means for removing measured volume (see automatic water purifying equipment, and also examples). With regard to sealing the pouch, this is a product by process limitation: “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re *Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Claim 18: membrane is single ply; Claim 19: multiply construction with different material and structure for the membrane; Claim 20: continuous membrane (column 2 lines 50-68).

Claim 22: microporous membrane – see column 2 lines 35-36. Less than 5 microns would fall within the microporous range.

Claim 23: perforated: figure 4: the membrane (or barrier 31+39: pouch formed between the container 32 and barrier 39) of O'Dowd has perforations 42.

Claim 24: membrane material is non-permeable to solid iodine – inherent property of the membrane: membrane described is the same as that of the applicant. The claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable. *In re Best*, 562 F.2d, 1252, 1254, 195 USPQ 430, 433 (CCPA 1977).

Claim 25: device can produce controlled iodine solution to any strength up to saturation – column 3 lines 10-28.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Place'905 as applied to claim 16 above and further in view of Adam et al (US 5,573,841).

Place teaches the limitations of claim 16, but differs in the teaching of the non-woven. Adam et al teaches the non-woven membrane material for the pouch – see abstract. It is a single or multi-ply (abstract; for multi-ply – see comparative examples – commercially available infusion package material at column 14). The non-woven is inherently nano or microporous. It would be obvious to one of ordinary skill in the art at the time of invention to use the teaching of Adam et al in the teaching of Place because Place teaches requirement of mechanical support for the membrane, and Adam

teaches the strong and autogenously heat-sealable material for making infusion bags (tea bags) – see column 1 lines 13-35.

3. Claims 16,17 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vermes et al (US 5,273,650) in view of Place'905.

Claim 16: claim language, 'where desired' and 'where required' are considered to represent optional structures, and therefore, do not further limit the claims.

Claim limitations recited a "suitable means of (controlled flow, supplying agitation, heating or cooling, controlling pressure, removing measured volume, etc.)" represent means-plus-function language, and therefore, invoke 35 USC 112, 6th paragraph. An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof. Since the specification does not provide any specific structure of description for these means-plus-function language, they are afforded the broadest reasonable interpretation. See *Kemco Sales, Inc. v. Control Papers Company, Inc.*, 208 F.3d 1352, 54 USPQ2d 1308 (Fed. Cir. 2000), and MPEP 2181.

Vermes teaches a device for producing iodine solution comprising an iodine vapor permeable membrane (26 and 40-figure 2; column 2 lines 32-61) in the form of a pouch (sealed cartridge –figure 3; sealed with adhesive – column 2 lines 55-60), iodine source in the pouch (iodinated resin 34, an iodine receiving medium (water), a vessel

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(10), means for applying agitation (by flow of water through the filter), and means for removing measured volume (faucet: column 2 line 26).

Claim 16 differs from the teaching of Vermes in the recitation of a water or liquid impermeable membrane. Place teaches such a liquid impermeable membrane (microporous polyethylene) to contain an iodine source. It would be obvious to one of ordinary skill in the art at the time of invention to use the teaching of Place in the teaching of Vermes because Place teaches the advantage of overcoming problems associated with water entering the iodine source causing instabilities and erratic elution of iodine (column 1 lines 39-50 and column 2 lines 31-43). Alternately, one would use the teaching of Vermes to modify the device of Place to have ceramic support to the microporous membrane, for the support requirement taught by Place in column 2 lines 49-60. Such modification affords installation in water treatment systems as taught by Vermes (abstract).

Claim 17: membrane is inorganic material – ceramic materials 26 and 40: column 2 lines 32-41.

Claim 23: disc 40 and the ceramic filter 26 are porous or perforated.

Response to Arguments

Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S. Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Krishnan S. Menon
Patent Examiner
1/24/06


JOHN KIM
Primary PATENT EXAMINER